

Remarks

For the Claims:

Applicants originally submitted claims 1-20. A first Office Action, dated 6 October 2004, asserted that claims 1-20 were subject to restriction and/or election. A first Amendment, dated 8 November 2004, elected claims 1-19, withdrew claim 20, and added claims 21-29. A second Office Action, dated 9 February 2005, rejected claims 1-15 and 17-29, and objected to claim 16. A second Amendment, dated 9 May 2005, retained claims 1-29 as originally or previously submitted and added claims 30-31. A third, and final, Office Action, dated 11 August 2005, rejected claims 1-16 and 17-31, and objected to claim 16. A third Amendment, dated 11 October 2005, amended claims 1, 10, 11, 15, 19-21, 30, and 31, canceled claims 7, 9, 12-14, 16, and 23, and retained claims 2-6, 8, 17, 18, 22, and 24-29 as originally or previously submitted. A fourth Office Action, dated 23 November 2005 refused entry of the 11 October 2005 third Amendment because it allegedly raised new issues that required further consideration and/or search. Thus, the fourth Office Action maintained the rejection of claims 1-16 and 17-31, and objection to claim 16. A Request for Continued Examination (RCE) was filed 12 December 2005 to enable entry of the 11 October 2005 third Amendment. A fifth Office Action, dated 23 March 06, responsive to the RCE and the 11 October 2005 third Amendment, rejected all remaining claims, i.e., claims 1-6, 8, 10, 11, 15, 17-22, and 24-31. A fourth Amendment, dated 23 June 2006, amended claims 1, 10, 15, 19, 21, 22, 30, and 31, and retained claims 2-6, 8, 11, 17-18, 20, 24-29 as originally or previously presented. This sixth, and final, Office Action, dated 1 November 2006, maintains the rejection of claims 1-6, 8, 10, 11, 15, 17-22, and 24-31.

Applicants cancel claims 1-20, 22-23, 25-27, 29, and 31, amend claims 21, 28, and 30, and retain claim 24 as previously submitted. In addition, Applicants add claims 32-47. Applicants respectfully request reconsideration in view of the modifications to the claims and the following remarks.

This Office Action rejects claims 1-6, 10-11, 15, 17, 19-22, and 25-31 under 35 U.S.C. 103(a) as being unpatentable over Kang, U.S. Patent No. 5,807,357, in view of Hewitt et al., U.S. Patent No. 5,216,759 (hereinafter Hewitt). In addition, claims 8, 18, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kang in view of Hewitt as applied to claims 1, 15, and 24, and further in view of Dykstra et al., U.S. Patent No. 5,935,982.

Claims 21, 28, and 30 are being amended to more clearly point out and distinctly claim that which Applicants believe to be the invention, claims 1-20, 22-23, 25-27, 29, and 31 are being canceled, and claim 24 is being retained as previously presented. In addition, claims 32-47 are being added to more clearly point out and distinctly claim that which Applicants believe to be the invention. Due to the cancellation of claims 1-20, 22-23, 25-27, 29, and 31, the rejections of these claims set forth in this Office Action are now moot. Consequently, the rejections set forth in this Office Action will be discussed in connection with the remaining claims 21, 24, 28, and 30, and the added claims 32-47.

This Office Action asserts that Kang discloses all aspects of the claimed invention with the exception of the conduits being flexible. The Office Action points to Hewitt as allegedly disclosing goggles of a similar construction to the mask of Kang, and teaches of constructing the mask using a flexible material in order to allow the mask to conform to the wearer and provide a secure fit. The Office Action further asserts that if the mask

of Kang is constructed from a flexible material, the conduits which allegedly comprise part of the mask would also be flexible. The Office Action concludes, therefore, that it would be obvious to construct the Kang mask out of a flexible material to allow the mask to conform to the wearer and provide a secure fit.

Independent claim 21 was amended to clarify the claim language and to remove the limitation of elongated, flexible conduits. That is, independent claim 21 now includes the limitation of "...the one or more fog outlets using one or more elongated conduits such that the fog passes..." Since Hewitt was cited as a teaching of the former flexibility limitation, the rejection of claim 21 in view of a combination of Kang and Hewitt is moot. What remains, therefore, is an analysis of whether the invention of amended independent claim 21 is rendered obvious in view of Kang. Applicants respectfully assert that independent claim 21 is not obvious in view of Kang, primarily because Kang fails to teach or suggest elongated conduits, despite Office Action allegations to the contrary.

As to the claim 21 recitation of "one or more elongated conduits," the Office Action alleges that Kang teaches of a conduit 11, shown in FIG. 3, that leads from the atomizer 20 to the eye pieces of the Kang mask 10. The Office Action notes that the conduit 11 has a length, and is therefore elongated.

The reference numeral "11" taught by Kang is an air hole in the Kang goggles unit that communicates with a left air chamber 12 and a right air chamber 13 of the goggles unit (col. 1, lines 54-59). A fine spray of eye treatment solution is carried by currents of air through the air hole 11 into the left air chamber 12 and the right air chamber 13 to treat the eyes.

Definitions are provided herein to show that Applicants' recitation of an elongated conduit is not equivalent to the Kang teaching of a hole. Moreover, the definitions of "elongated" and "conduit," therefore "elongated conduit" are consistent with the accepted meanings of the terms.

Hole: an opening through something (MERRIAM-WEBSTER ONLINE (www.Merriam-Webster.com) copyright 2005 by Merriam-Webster, Incorporated).

Conduit: a natural or artificial channel through which something (as a fluid) is conveyed (MERRIAM-WEBSTER ONLINE (www.Merriam-Webster.com) copyright 2005 by Merriam-Webster, Incorporated).

Channel: a usually tubular enclosed passage: CONDUIT (MERRIAM-WEBSTER ONLINE (www.Merriam-Webster.com) copyright 2005 by Merriam-Webster, Incorporated).

Elongated: stretched out (MERRIAM-WEBSTER ONLINE (www.Merriam-Webster.com) copyright 2005 by Merriam-Webster, Incorporated).

Elongated: Having more length than width; slender (*The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company*).

Since the Kang air hole 11 allows the conveyance of something, i.e., a fine spray of eye treatment solution, one could consider the air hole 11 as being a conduit. However, claim 21 doesn't include the mere recitation of a conduit. Rather, independent claim 21 includes the recitation of an "elongated conduit." As demonstrated by the definitions above, an "elongated conduit" is a stretched out (i.e., having more length than width) channel (i.e., a usually tubular enclosed passage) through which something (as a fluid) is conveyed. The claimed elongated conduit is clearly illustrated in FIGs. 1-3, reference numeral 102, FIG. 5, reference numerals 502 and 510,

and FIGs. 8A and 8B, reference numerals 804, as being a tubular enclosed passage having more length than width.

As shown in Kang, FIG. 11, the Kang air hole 11 is not an elongated conduit because it does not have more length than width. Rather, its length is shown to be the thickness of the goggle wall, while it's width is the diameter of the air hole 11. Consequently, the length of the air hole 11 (i.e., thickness of the goggle wall) is significantly less than the width (i.e., diameter) of the air hole 11. Consequently, Kang fails to teach or suggest elongated conduits.

Nor is there any motivation to modify the Kang nebulizer to incorporate elongated conduits between one or more atomizers and one or more fog outlets, as recited in claim 21. The Kang nebulizer unit 20 mounts directly to the goggles unit 10 via mounting holes 151 (col. 2, lines 10-15). Therefore, an air hole 11 is sufficient for carrying the spray of eye treatment solution from the nebulizer to the goggles. Unfortunately, however, the direct attachment of the Kang nebulizer unit 20 to the top of the goggles 10 can cause discomfort to the wearer. That is, the weight of the Kang nebulizer unit 20 may cause pressure against the user's forehead and/or cheeks creating irritation and/or headaches. Of course, this discomfort can result in noncompliance by the user with consequent cessation of treatment or only intermittent treatment.

In contrast, Applicants' elongated conduits of claim 21 allow for the placement of the atomizer(s) away from the goggles, i.e., the device worn around the tissues to be treated. More particularly, Applicants' claimed elongated conduits remove the necessity of attaching the nebulizer unit (atomizers) directly to the goggle structure, and especially to the top of the goggles, as taught by Kang. Thus, the weight of the atomizers can be

removed from the user's head and/or face yielding greater comfort to the user.

Accordingly, for the reasons set forth above, Applicants believe that amended independent claim 21 is not obvious in view of Kang alone or in combination with Hewitt. Claims 24 and 28, and added claims 32-40, depend directly or indirectly from claim 21 and are believed allowable for the reasons set forth above. In addition, the claims 24, 28, and 32-40 are allowable for independent reasons.

For example, claim 28 was amended to include the further limitation of one or more power supplies connected to the one or more atomizers via elongated electrical leads such that the one or more power supplies are located distal from the one or more atomizers and the device for delivering medicine. The limitations of claim 28 are illustrated in FIG. 1 and discussed in Applicants' specification at paragraph [0038]. Claim 28 points out the distal location of the power supplies relative to the elements that may be worn by the user. The invention of claim 28 removes the weight and commensurate discomfort of the power supplies, such as the Kang batteries 40, from the user worn nebulizer unit 20, as taught by Kang. Only Applicants teach or suggest such a configuration. Accordingly, Applicants believe amended claim 28 to be allowable over Kang alone or in combination with Hewitt.

Added claim 32 includes the limitation of the device for delivering medicine comprises a mask adapted to be worn around the eyes. Claim 33, which depends from claim 32, includes the limitation of the mask having a substantially transparent mask face, and the one or more fog outlets are formed in the mask face. Claim 34, which depends from claim 33, includes the further limitation of the one or more fog outlets are

approximately centered on the mask face for placement in front of the eyes. Claim 35, which also depends from claim 33, includes the further limitation of the one or more elongated conduits are mounted at the one or more fog outlets formed on the mask face.

The invention of claims 32-35 is illustrated in FIGs. 7A, 7C, and 7D and is discussed in Applicants' specification at paragraphs [0051] and [0053]. Applicants have discovered that placement of the fog outlets on the mask face, and especially, for placement in front of the eyes allows for more directed and more concentrated delivery of the medicine-carrying fog to the eyes. Moreover, since the fog is discharged directly toward the target tissue the quantity of medicine needed is reduced. Consequently, this targeted delivery of the medicine-carrying fog provides a more effective treatment and less waste of the medicine than prior art devices, such as that taught by Kang.

The limitation of claim 35 in which the elongated conduits are mounted at the one or more fog outlets formed in the mask face again allows the one or more atomizers to be mounted apart from the mask face. This feature is more comfortable to the user and enables the user to have a largely unobstructed view through the substantially transparent mask face so that the user can view an image, such as a photograph, a writing sample, a television or computer screen, and the like during treatment.

Kang utterly fails to teach or suggest the limitations of one or more fog outlets formed in the mask face of the Kang goggles. Indeed, only Applicants teach or suggest such a configuration. Accordingly, Applicants believe added claims 32-35 to be allowable over Kang alone or in combination with Hewitt.

Added claim 36, which depends from independent claim 21, includes the limitations of a mask frame and substantially rigid

ear support members located on opposing sides of the mask frame, with the ear support members being adapted to be worn over the ears of the user to support the mask frame in front of the eyes. Added claim 37 depends from claim 36 and includes the further limitation of the ear support members being hollow members interposed between the fog outlets and the atomizers, the ear support members establishing at least a portion of the one or more elongated conduits.

The invention of claim 36 is illustrated in FIGs. 5 and 6, and the invention of claim 37 is more particularly illustrated in FIG. 5. Moreover, the invention of claims 36-37 is discussed in Applicants' specification at paragraphs [0048], [0049], and [0050]. Applicants have determined that the eye medication delivery system must be comfortable in order to yield a greater probability that a user will comply with an eye treatment regime. Thus, instead of a band that holds the mask in front of a user's eyes, the invention of claims 36 and 37 allows the mask to be worn like a pair of glasses or spectacles. For those individuals who are used to wearing corrective lenses and/or sunglasses, such a structure is likely to be more comfortable, and less offensive, thus increasing the probability of compliance with the eye treatment regime.

Kang utterly fails to teach or suggest the limitations of a eye medication delivery system having a mask frame and substantially rigid ear support members located on opposing sides of the mask frame, with the ear support members being adapted to be worn over the ears of the user to support the mask frame in front of the eyes. Indeed, only Applicants teach or suggest such a configuration. Accordingly, Applicants believe added claims 36-37 to be allowable over Kang alone or in combination with Hewitt.

Claim 39, which depends from claim 21, includes the limitation of the atomizers being located a distance away from the device for delivering medicine, the distance being defined by a length of the one or more elongated conduits. The invention of claim 39 is most clearly illustrated in FIGs. 1, 2, 3, 5, 8A, and 8B. Claim 39 more clearly points out that the atomizers can be located distant from the medication delivery device worn around the tissues to be treated, the distance being established in response to the length of one or more elongated conduits. Again, this distance allows for the placement of the atomizers away from direct contact with the user's head, thereby increasing user comfort and the probability of compliance with an eye treatment regime relative to prior art devices, such as that taught by Kang.

As discussed in connection with claim 21, Kang does not teach of elongated conduits. Rather, the Kang nebulizer unit 20 mounts directly to the goggles unit 10. Thus, Kang fails to teach or suggest of the atomizers being located a distance away from the device for delivering medicine, the distance being defined by a length of the one or more elongated conduits, as recited in claim 39. Indeed, only Applicants teach or suggest such a configuration. Accordingly, Applicants believe added claim 39 to be allowable over Kang alone or in combination with Hewitt.

Independent claim 30 was amended to clarify the claim language and to remove the limitation the flexibility of the elongated conduits. In addition, claim 30 was amended to provide a mask having a mask face, the mask face having fog outlets approximately centered on the mask face for placement substantially in front of the eyes such that medicine-carrying fog is discharged from the fog outlets to deliver the medicine-carrying fog to the eyes.

Applicants believe that amended independent claim 30 is allowable for the reasons set forth in connection with claims 33-34. That is, Kang utterly fails to teach or suggest the limitations of one or more fog outlets formed in the mask face of the Kang goggles so that medicine-carrying fog is discharged from the fog outlets to the eyes. Thus, Kang fails to achieve the treatment efficacy of the method of claim 30 in which the targeted delivery of the medicine-carrying fog provides a more effective treatment and less waste of the medicine than prior art devices, such as that taught by Kang.

The added independent claim 41 includes the limitations of a mask adapted to be worn around the eyes, the mask including fog outlets, atomizers located a distance away from the mask, and elongated conduits interposed between the atomizers and the fog outlets through which medicine-carrying fog passes with the distance between the atomizers and the mask being defined by a length of the elongated conduits. Applicants believe claim 41 to be allowable for the reasons set forth in connection with claims 21 and 39.

Added claim 42, which depends from claim 41, includes the limitation of the mask comprises a substantially transparent mask face, and the fog outlets are formed in the mask face. Applicants believe claim 42 to be allowable for the reasons set forth in connection with claim 33.

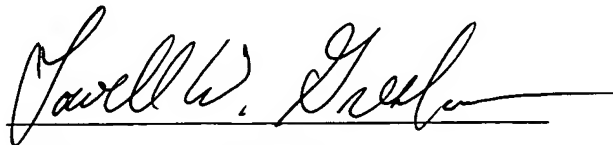
Added claims 43-46 depend directly or indirectly from claim 42. The subject matter of claims 43-46 relates to that recited in claims 34-37, respectively. Accordingly, Applicants believe claims 43-46 are allowable for the reasons set forth in connection with claims 34-37.

Regarding the rejection of claims 8, 18, and 24 under 35 U.S.C. 103(a) as being unpatentable over a combination of Kang, Hewitt, and Dykstra, claims 8 and 18 have be canceled. Therefore, their rejection is moot. Claim 24, as previously presented, includes the limitation of the fog comprising liquid droplets in the size range of at least about 3 to 5 microns in diameter. Claim 24 depends from amended independent claim 21 and is believed allowable by reason of dependency.

Accordingly, this Amendment cancels claims 1-20, 22-23, 25-27, 29, and 31, amends claims 21, 28, and 30, and adds claims 32-47. Currently amended claims 21, 28, and 30 remain in the application and are believed to be allowable. In addition, claim 24 remains in the application as previously presented, claims 32-47 are added, and all are believed to be allowable.

Applicants believe that the foregoing amendments and remarks are fully responsive to the rejections and/or objections recited in the 1 September 2006 Office Action and that the present application is now in a condition for allowance. Accordingly, reconsideration of the present application is respectfully requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Lowell W. Gresham', is written over a horizontal line.

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